AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended): An integrated modem circuit ~~comprising~~ comprises:

a processor-system ~~(1)~~ and hardware ~~(2,3)~~ for exchanging signals with ~~another~~ a second modem circuit and ~~, which integrated modem circuit comprises~~

a digital phase locked loop filter ~~(11)~~, ~~characterized in that~~ wherein said integrated modem circuit exchanges signals with ~~another~~ the second modem circuit at a speed of 1 Mb/s or more, ~~with~~ and wherein said processor-system ~~(1) comprising~~ comprises filter software ~~(11)~~ for embodying said digital phase locked loop filter, and ~~with~~ said hardware ~~(2,3) comprising~~ comprises at least one module ~~(22,32) for~~ which ~~compensating~~ compensates for sample processing,

wherein said processor-system performs an initialization step for initiating software to be run via said processor-system and/or a reading step for reading a software part at an address in a memory, and/or a first detection step for detecting a first instruction, and/or a second detection step for detecting a second instruction, and/or a third detection step for detecting an execution, and/or an execution step for performing at least one execution.

2. (Currently Amended): The integrated modem circuit according to claim 1, ~~characterized in that~~ wherein said processor-system ~~(1)~~ comprises sample software ~~(14,15)~~ for processing samples in dependence of results originating from said phase locked loop filter ~~(11)~~.

3. (Currently Amended): The integrated modem circuit according to claim 2, ~~characterized in that~~wherein said hardware ~~(2,3)~~further comprises in a transmission path ~~(2)~~a mapper~~(21)~~, a first rotor,~~(22)~~ and an inverse Fourier transformator,~~(23)~~ and in a receiving path, ~~(3)~~a Fourier transformator~~(33)~~, a second rotor,~~(32)~~ and a demapper~~(31)~~, with at least one of said first or second rotors ~~(22,32)~~forming said at least one module.

4. (Currently Amended): The integrated modem circuit according to claim 3, ~~characterized in that~~wherein said processor-system ~~(1)~~comprises control software ~~(12,13)~~for controlling at least one of said first or second rotors ~~(22,32)~~in dependence of results originating from said phase locked loop filter~~(11)~~, with at least one of said transformators ~~(23,33)~~being controlled by results originating from said sample software~~(14,15)~~.

5. (Cancelled).

6. (Currently Amended): The integrated modem circuit according to claim [[5]] 1, ~~characterized in that~~wherein said processor-system ~~(1)~~performs in response to a positive detection ~~(104)~~of said first instruction a first adaptation step ~~(110)~~followed by at least a fourth detection step ~~(111)~~and/or a fifth detection step~~(112)~~, ~~with~~wherein said first adaptation step ~~(110)~~and/or said fourth detection step ~~(111)~~and/or said fifth detection step ~~(112) being~~is followed by a first incrementation step ~~(114)~~for incrementing said address.

7. (Currently Amended): The integrated modem circuit according to claim 6, ~~characterized in that~~wherein said processor-system ~~(1)~~performs in response to a positive detection ~~(105)~~of said second instruction a sixth detection step ~~(115)~~followed by at least a

second adaptation step (116,117), with said second adaptation step (116,117) and/or said sixth

detection step (115) being followed by a second incrementation step (118) for incrementing said

address.

8. (Currently Amended): A processor-system (1) for use in an integrated modem circuit,

the integrated modem circuit comprising:

-said processor-system, (1) and hardware (2,3) for exchanging signals with another a

second modem circuit, and which integrated modem circuit comprises

a digital phase locked loop filter (11), characterized in thatwherein said integrated

modem circuit exchanges signals with another the second modem circuit at a speed of 1 Mb/s or

more, with and wherein said processor-system (1) comprisesing filter software (11) for

embodying said digital phase locked loop filter, and with said hardware (2,3) comprising

comprises at least one module (22,32) for which compensatesing for sample processing,

wherein said processor-system performs an initialization step for initiating software to be

run via said processor-system and/or a reading step for reading a software part at an address in a

memory, and/or a first detection step for detecting a first instruction, and/or a second detection

step for detecting a second instruction, and/or a third detection step for detecting an execution,

and/or an execution step for performing at least one execution.

9. (Currently Amended): A processor program product to be run via a processor-system

(1) for use in an integrated modem circuit, the integrated modem circuit comprising:

-said processor-system (1) and hardware (2,3) for exchanging signals with another a

second modem circuit, and, which integrated modem circuit comprises

a digital phase locked loop filter ~~(11)~~, ~~characterized in that~~wherein said integrated

modem circuit exchanges signals with ~~another~~ a second modem circuit at a speed of 1 Mb/s or

more, ~~with~~ and wherein said processor program product ~~comprising~~ comprises the function of

filtering ~~(11)~~ for embodying said digital phase locked loop filter, and ~~with~~ said hardware ~~(2,3)~~

comprise~~sing~~ at least one module ~~(22,32) for~~which compensate~~sing~~ for sample processing,

wherein said processor-system performs an initialization step for initiating software to be

run via said processor-system and/or a reading step for reading a software part at an address in a

memory, and/or a first detection step for detecting a first instruction, and/or a second detection

step for detecting a second instruction, and/or a third detection step for detecting an execution,

and/or an execution step for performing at least one execution.

10. (Currently Amended): A method for use in an integrated modem circuit comprising

a processor-system, ~~(1) and~~ hardware for exchanging signals with ~~another~~ a second modem

circuit, ~~which integrated modem circuit comprises~~and a digital phase locked loop filter ~~(11)~~,

~~characterized in that~~wherein said integrated modem circuit exchanges signals with ~~another~~ a

second modem circuit at a speed of 1 Mb/s or more, ~~with said~~the method comprising the steps of:

-filtering for embodying said digital phase locked loop filter by means of filtering

software, and ~~(11) and of~~

compensating for sample processing by means of at least one module ~~(22,32)~~ of said

hardware ~~(2,3)~~,

wherein said processor-system performs an initialization step for initiating software to be

run via said processor-system and/or a reading step for reading a software part at an address in a

memory, and/or a first detection step for detecting a first instruction, and/or a second detection

step for detecting a second instruction, and/or a third detection step for detecting an

execution, and/or an execution step for performing at least one execution.